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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,942	04/02/2004	Antoon Johannes Gerardus van Rossum	005032.00053	8940

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EXAMINER	
KORNAKOV, MICHAIL	
ART UNIT	PAPER NUMBER
1746	

DATE MAILED: 10/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/815,942	VAN ROSSUM ET AL.	
	Examiner	Art Unit	
	Michael Kornakov	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *29-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *29-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *04/02/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 29-37, 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al (U.S. 5,574,117) in view of EP 0478,067.

Yoshida discloses an alkali soluble film, comprising an **acrylic polymer as a binder**, which acrylic polymer is obtained by bulk polymerization and has a number average molecular weight **1,000-1,000,000** and M_w/M_n ratio of **less than 5. A glass transition temperature of the binder is –80^{0}C or higher** (see abstract). The soluble film is removable by alkali solution and is useful as protective film coating for agricultural use (see col.8, lines 17-27). Specific monomers named in the instant claim 29 are found in Yoshida's Examples, such as Example 1-1 in col.43, 44, Example 2-27 in col.53 and others. As for the acid value number, a broad teaching of Yoshida is that the acid value is higher than 65 mg/g, and there are several specific examples, such as example which cite the acid values of **150mg/g**, which is a specific point within the claimed range. The acrylic polymer of Yoshida when used in compositions for protective coatings employs different additives, such as reinforcing agents, fillers, antioxidants, plasticizers, lubricants such as carbon black, silica based anhydrous salycilic acid **calcium carbonate** (col. 5, lines 35-40) and titanium oxide (col. 9, line 64), which are named as a pigments in the instant claim 35 .

Yoshida further teaches that for an alkali soluble adhesive the polymer binder is combined with solvent wax, tackifier, and if 100 parts of a polymer is combined with 0-400 parts of solvent, 0-50 parts of wax, and 0-50 parts of tackifier, as taught by Yoshida,

then the amount of a binder as set forth in the instant claims 34 and 36 is clearly within the claimed range. Example 2-21 shows the production of a polymer, which has weight average molecular weight 32,000, polydispersity 2.2, and acid value of 160mg/g. Polycarboxylic acid thickener is taught by Yoshida. The detergents taught by Yoshida throughout entire Patent are the pigment dividers of the instant claims.
Yoshida teaches the protective coating as instantly claimed with characteristics as instantly claimed. He does not specifically attribute such coating to agreenhouse, however clearly motivates those skilled in the art to do so by utilizing his protective film coating removable by alkali solution for agricultural purposes.

EP'067 discloses a protective coating and a method of forming such coating against solar radiation for glass plates and outer surfaces of horticultural greenhouses by spraying a composition and drying it on the said substrate (see abstract, page 2, lines 1-4). The product of EP'067 consist of a polymer and an inorganic substance, which in dried condition of the product is light reflective, in particular the additives are one or more inorganic pigments, at least one binding agent (adhesion promoter), at least one surface active agent (pigment divider), a preserving agent, etc. (page 2, lines 41-45). The product used to remove the coating made of above described product is formed from a basic component, at least one complex former and at least one surface active agent (page 2, lines 49-51). As an example of a binder forming polymer the copolymer of **styrene** and maleic anhydride is used, (see Example in the Composition product

1,lines 15-25 of page 3). The finely divided calcium carbonate, which is used as a pigment is utilized in the amount of 30-60 % by weight .

However, EP'067 does not limit its binder for a protective coating to a copolymer of styrene and maleic anhydride. Moreover, EP'067 generically teaches that the effective binding agent is an organic polymer with neutralized carboxylic acid residues (see page 2, lines 46, 47) Furthermore, Yoshida also discloses the maleic acid monomer as a possible monomer for his protective coating in the list along with polymers based on (meth)acrylic monomers, thus Yoshida recognizes equivalency of using polymers of acrylates and polymers of maleic acid for protective film coatings removable by alkali solutions. Therefore based on a clear motivation of Yoshida to utilize the coatings in agriculture and on the recognized equivalency of use of maleic acid and acrylic acid polymers as discussed above, one skilled in the art would have found obvious to utilize protective coating of Yoshida with its recited properties and functions for the greenhouse of EP'067, as in the instant case substitution of equivalent methods requires no express motivation, as long as the prior art recognizes equivalency, ***In re Fount*** 213 USPQ 532 (CCPA 1982); ***In re Siebentritt*** 152 USPQ 618 (CCPA 1967); ***Graver Tank & Mfg. Co. Inc. V. Linde Air products Co***. 85 USPQ 328 (USSC 1950). It is further noted that a preamble is not accorded significant patentable weight since it merely recites the purpose of a process or the intended use of a structure. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

5. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida in view of EP'067 as applied to claim 29 above and further in view of Wieczorrek (U.S. 4,409,266).

While disclosing different additives that can be used as adhesion promoters, Yoshida and EP'067 do not specifically disclose silanes as adhesion promoters. Wieczorrek discloses shatterproof coating of glass surfaces by coating the surfaces with a coating composition. The glass surfaces to be coated being coated before application of the coating composition with a physically drying priming lacquer containing a ***silane adhesion promoter*** and a catalyst which accelerates hardening of the coating composition and, as binder, a polymer which has a linear molecular structure and which is soluble in lacquer solvents (abstract). Because both all the references are concerned with the same problem of protective coating applied to glass with adhesion promoters, those skilled in the art would have found obvious to utilize silane adhesion promoter of Wieczorrek in the coating of Yoshida/EP'067 because doing so will enhance adhesion properties of the polymer film to the glass substrate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Kornakov whose telephone number is (571) 272-1303. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Kornakov

Michael Kornakov
Primary Examiner
Art Unit 1746

10/20/2005